

EFFECT OF FINANCIAL STATEMENT ANALYSIS ON INVESTMENT DECISION MAKING. A CASE OF BANK OF KIGALI.

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ABSTRACT

One of important assumptions in decision making process and improvement economy is existence of quality information. Significant number of this information comes from accounting information systems and from financial statements. Financial statements have to provide realistic and objective picture of realistic business condition of certain company. There are numerous factors that affect the decision making of an investment plan. Financial Reporting Standards and Practices have in the recent past come under great criticisms, demanding that accountants take further steps in ensuring that the true and fair view of the actual worth of business are also incorporated in the financial statements published by them. The general objective was to examine the effect of financial statements in investment decision making by commercial banks using Bank of Kigali as the case study. The study adopted a descriptive survey design. The target population of the study was 150 respondents from bank of Kigali main branch. The sample size of 110 respondents was determined using Yamane's formula. Stratified random sampling was used to determine the sample size. The study used both primary and secondary data, where questionnaires, interview and annual reports of BK were used. Primary data for the study was collected using structured questionnaires that were administered to the respondents. Quantitative data obtained from close ended questions will be analyzed by using descriptive statistics. Narrative data obtained from interviews and open ended questions in the questionnaire were analyzed using qualitative approaches. Data collected was analyzed through SPSS version 21. Data analysis involved statistical computations for averages, percentages, and correlation and regression analysis. Descriptive and inferential statistics and content analysis was used for specific data. The study established that financial statement analysis is the single most important statement in investment decision making. The study concludes that, a combined 82% of the investment decision making are based on financial statements analysis as indicated in the measure of association, while 18% can be said to go to other factors. The study satisfied the objectives of the study which focused on establishing the extent of use of financial statements in investment decisions making. The study recommends that commercial banks devise a self-assessment form with benchmarks on the key areas of assessments to be codified within a document for clients to read and use it for self-assessment. From such assessment banks, can develop categories for customers, based on the investment decision making, the security expected and term of the investment. This would serve to minimize on the time taken in investment decision analysis.

Key words: Investment decision Making, Financial statement analysis, Trend analysis, Ratio analysis and Cost volume analysis.

1.0 Background.

Commercial banks are special institutions in modern economy because of their ability to efficiently transform financial claims of savers into claims (advances) issued to businesses, individuals and governments (Mishkin & Eakins, 2007). A commercial bank's ability to evaluate information and to control and monitor borrowers allows it to lend to the borrowers at the lowest possible cost (Kefela, 2010). Kefela adds that commercial bank accepts the credit risk on these loans in exchange for a fair return sufficient to cover the cost of funding to household savers and the credit risk involved in lending. The commercial bank needs information useful in evaluating credit risk of borrowers. Credit risk arises from the possibility that the borrower will default. In no way, would a bank extend credit to a potential defaulter (Mishkin & Eakins, 2007). Determining the credit risk on individual loans or bonds is vital before a bank manager can price a loan or value a bond correctly and set appropriate limits on the amount of credit extended to any one borrower or the loss of exposure the bank can accommodate. In the current world banks are moving away from the traditional approach of demanding for collateral when lending to customers, instead they require more information on the lenders this has brought to fore the credit reference bureaus (Duru, 2012). To improve on the credit information the banks should use ratio analysis which can easily be computed from the financial statements.

Lending being a high return business line for banks is also a high risk area thus the need for application of credit risk appraisal on potential borrowers. Analysis of financial statements in addition to gauging financial strength of performance and position can help detect unusual trends in those financial statements. Ng'ang'a (2006) notes that accounting information can be manipulated through recording fictitious transactions or amounts, recording transactions either early or late, misstating percentages or amounts involved in a transaction, misstating the amounts of assets or liabilities, changing accounting methods or estimates for no substantive reason and using related parties to alter reported profits.

Regarding the utility of information contained in financial statements to making lending decisions, Hernandez (2004) notes that there is a generalized opinion that the most commonly used statements are those that are purely budgetary, or connected with the budget, along with those related to liquidity; not only their greater use being obvious, but also their greater utility.

He adds that the statement of financial performance and the balance sheet are, in fact, the financial statements that are least relevant to financial institutions' indebtedness operation decision making. In indebtedness operation decisions, both in the short and in the long term, the budgetary settlement statement is of most use, followed, in the former, by the cash surplus statement and, in the latter, by the debt statement (Bowen & Ostroff, 2004). Credit institutions will, however, not rely purely on financial statement analysis. Adam (2003) noted that other information contained in the annual report such as the directors' report, the chairperson's or the chief executive officer's report and the auditors' report are used in credit risk appraisal. In addition to that he observed that the character and management skills of the borrower (directors), the purpose to which the borrowed funds will be put as well as the type of security or collateral were all used in the lending process.

There is a long tradition of developing and using financial ratios both in practice and in literature of financial statement analysis. The question of classification and selection of relevant financial ratios to reduce the redundancy between countless financial ratios has been subject of many researches (Horrigan, 1968 & Barnes, 1987). Different approaches have been applied on the classification problem of the financial ratios. The first approach being the pragmatic or an alternative approach is developed from established practices and personal views of eminent analysts. The relationship that exists among different items in the financial statements is revealed by accounting/financial ratios. Thus, they are important to internal management,

prospective investors, creditors, and outsiders. Ratios are also better tools for measuring liquidity, solvency, profitability and management efficiency of the firm. The role of accounting therefore is very significant towards increasing the efficiency of the management in order to reduce the expenditure level hence increase the rate of profit, and for the banks in lowering the level of non - performing loans. Ratios help identify the probable causal relation among different items after analyzing and scrutinizing the past results of a firm, the ratios derived after analyzing and scrutinizing the past results can help the management to prepare budgets to formulate policy and to prepare future plans of action and thus acts as a guide to preparing budgets.

According to Rehm (2002) Earlier banks lent money mainly to two classes of borrowers, merchant banks and governments. Governments of earlier years were major defaulters as there was no formal evaluation of governments, the loans were illiquid, lending were to mortgages as well as to other banks not forgetting those funds that were channeled to the security markets. Donze 2006 notes that today lending activities have been extended to include industries and other consumer, risk analysis is therefore crucial. Commercial banks remain a major financial intermediary in Rwanda today. Governments try to control the lending activities of banks, lending rates, and creation of credit. This it does by using the central bank as the central controlling institution. Banks combine a chain of services which include payments mechanism, a place to store wealth, lending services in the form of loans and overdrafts they accept deposits and foreign currency selling. Besides the above they also provide a number of additional services such as provision of advice to their clients, debt factoring, assisting exporters and importers, executorships and trusteeship services, insurance and brokerage services, share registration, unit trust business, stock exchange services, estate agency services and leasing.

1.2 Statement of the Problem

In modern business environment, which is becoming more competitive, the survival of firms, be it small or large; depend upon the strategic decisions made by management. This is however done with the help of financial statements analysis, which is a big challenge to most countries having shortage of professional accountants and financial analysts as it is the case to our country.

Every human being needs information in order to make the right decision, the right time. In a business organization, the financial data are obtained from the financial statements. Decision makers must analyze the data in financial statements to provide the meaningful information for use. Without correct information, the decisions made by decision makers may impede the growth of the organization. In this view, therefore, a sustained success will depend on how good decisions are made based on the proper analysis of financial statements. Thus, there is a close relationship between analysis of financial statements and effective business decision-making. The management of enterprise is depending on accounting information for taking various strategic decisions. Financial statements provide such information. This information is made useful by analyzing and interpretation of financial statements with help of financial analysis techniques. (Prof. Harvey B. Lermack, 2003). According to James *et. al* 2005, evaluating the firm's financial condition and performance, the financial analysis needs to perform checkups on various aspects of a firm's financial health. Financial statements are important tools in the management for decision making. (Sharma & Shashi 2001), financial statements are prepared primarily for decision making, but the information provided in financial statements is not an end in itself and no meaningful conclusion can be drawn from these statements alone. The financial analysis helps in making decisions from the information provided in these financial statements. Thus, the proper financial statements analysis assists management in communicating information which is pertinent and purposeful for decision makers to ensure the effectiveness of management in the enterprise. In Rwanda, no study has been carried out on the effect of financial statement analysis thus the researcher wants to fill the gap by carrying out the study. This study is set to investigate the effect of financial statement analysis on investment decisions making using Bank of Kigali for the case study

1.3 Objectives of the study

1.3.1 General objective

The general objective of the study was to examine the effect of financial statements analysis in investment decision making by commercial banks in Rwanda.

1.3.2 Specific objectives

The study was guided by the following specific objectives:

1. To establish the effect of trend analysis on investment decisions making in Bank of Kigali.
2. To assess the effect of ratio analysis on investment decision making in Bank of Kigali.
3. To assess the effect of cost-volume/profit analysis on investment decision making in Bank of Kigali.

2.0 Literature Review

2.1 Empirical review

According to Michael (2013) in his critical investigation on the degree of reliance of the published financial statements by corporate investors. The study employed survey research design by which data were generated by means of questionnaire administered on one hundred and fifty corporate investors and senior management officials of the selected banks. The descriptive statistics and percentage analysis were used for the data analysis and the hypotheses were tested using t-test statistic. The results reveal that one of the primary responsibility of management to the investors is to give a standardized financial statement evaluated and authenticated by a qualified auditor or financial experts. It also showed that investors do understand the financial statement well before making investment decisions. The results of the analysis also indicated that investors depend heavily on the credibility of auditors/financial expert approval of financial statement in making investment decisions and as such published financial statement is very important in the investors' decision making. He recommended that adequate care and due diligence should be maintained in preparing financial statements to avoid faulty investment decisions which could lead to loss of funds and possible litigations.

There is therefore the general belief that published financial statements have failed in its responsibility of provide credible information for investors and other users of financial statements (Duru, 2012). According to Popoola, et-al (2014), they investigated published financial statement as correlate of investment decision among commercial bank stakeholders in Nigeria. A correlation research design was used in their study. 180 users of published financial statement were purposively sampled from Lagos and Ibadan. Data generated were analyzed using Pearson correlation and regression. The findings of their study revealed that, balance sheet is negatively related with investment decision, while income statement, notes on the account, cash flow statement, value added statement and five-year financial summary are positively related with investment decision making. Their findings also revealed that components of published financial statement significantly predicted good investment decision making for commercial bank stakeholders. And they recommended that Nigeria banks and professional bodies should instigate programs that will increase the knowledge of stakeholders on published financial statement.

Corporate organizations owe a duty to fully disclose matters concerning their operations so as to aid investors in making investment decisions because Investment decision makers rely on information obtained from financial statements to predict future rates of return. Without the financial statement, there will be a problem of how to determine the profit of a company, and evaluation of performance of a company. The general objective was to ascertain the role of financial statement in investment decision making. The study was based on survey and questionnaire used to gather the information. He discovered from the test of

hypotheses that financial statement is relied upon in investment decision making and financial statements are useful for forecasting company's performance. The concluded was drawn based on the findings that financial statement plays a vital role in investment decision making and recommends that no investment decision should be taken without the consideration of a company's financial statements Mercy (2014).

Otley (2012) argues that financial statement is an important part of the fabric of organizational life and the need to be evaluated in their wider managerial, organizational and environmental context. Therefore, the effectiveness of financial report not only depends on the purposes of such systems but also depends on contingency factors of each organization. Financial statements are said to be effective when the information provided by them serves widely the requirements of the users. Effective financial statement should systematically provide information which has a potential effective on investment decision making by the prospective investors.

The perception of investors about a company's ability affects the market prices of the company's security relative to others in the industry. Financial statement can only be useful if they are well understood published financial statement is the information source that is most directly related to the items of interest to both existing and potential investors.

According to Onyekwelu (2010), the satisfaction of the needs of the various users of accounting information as contained in the annual report can be accepted as the objective of financial statement. This objective of information is emphasized by the various accounting principles because investors and creditors use them in making rational investment and credit decisions. Financial statement fairly represents the business and economic situation of a country, which if studied carefully can lead to the achievement of some financial and economic goals.

For instance, the balance sheet provides the observant with a clear picture, of the financial condition of the company as a whole. It lists in detail the tangible and intangible assets that the company owns and owes, while the profit and loss accounts summaries the income and expenditure of a company in a given period of time. It shows the result of operation during these accounting periods. Also, it is through the use of financial reports that users can assess the project of receiving cash as divided or interest and proceeds from sales, exemption or maturing securities or loans for instance, cash flow statement shows how cash is predicted to move around at a particular given period of time. It is useful for planning future expense. It shows whether or not there will be enough cash to carry out the planned activities and whether or not the cash coming in will be enough to cover the expenses. It is useful in the determination of the company's liquidity in a given period of time.

According to Aroh, et-al (2011), the most important purpose of the annual report is to get the shareholders informed about the financial status of his company, especially as to its income and financial position. The usefulness of financial statement to investors is to assist them to assess the ability of an enterprise to pay divided and interest when due while to the potential investors, published financial statement is used to decide on the type of security to invest in or which company to invest in. Conclusively, financial statement of accompany should provide information about the economic resources of a company, which are the sources of prospective cash inflows to the company. It should also provide its obligation to transfer economic resources to others which are the source of prospective cash outflow from the company and its earnings which are the financial results of its operation.

According Adebayo, et-al (2013), they examine the impact of accounting information system in assisting organizations in making sound and effective investment decision. The major source of data to their research was primary data through the administration of questionnaires. Regression analysis and Karl Pearson's correlation was used for the data analysis. Their findings shown that accounting information system is an

indispensable tool in investment decision making in today's turbulent world. Organizations are however, advised to invest on information technology tools as it improve their efficiency, effectiveness and their overall performance.

2.4 Conceptual Framework

Conceptual framework refers to the framework of thinking that the researcher will use to achieve his research objectives. Thus, financial statements do influence greatly investments decisions by informing investors about the investment project analysis, corporate financial positions, and corporate financial performances.

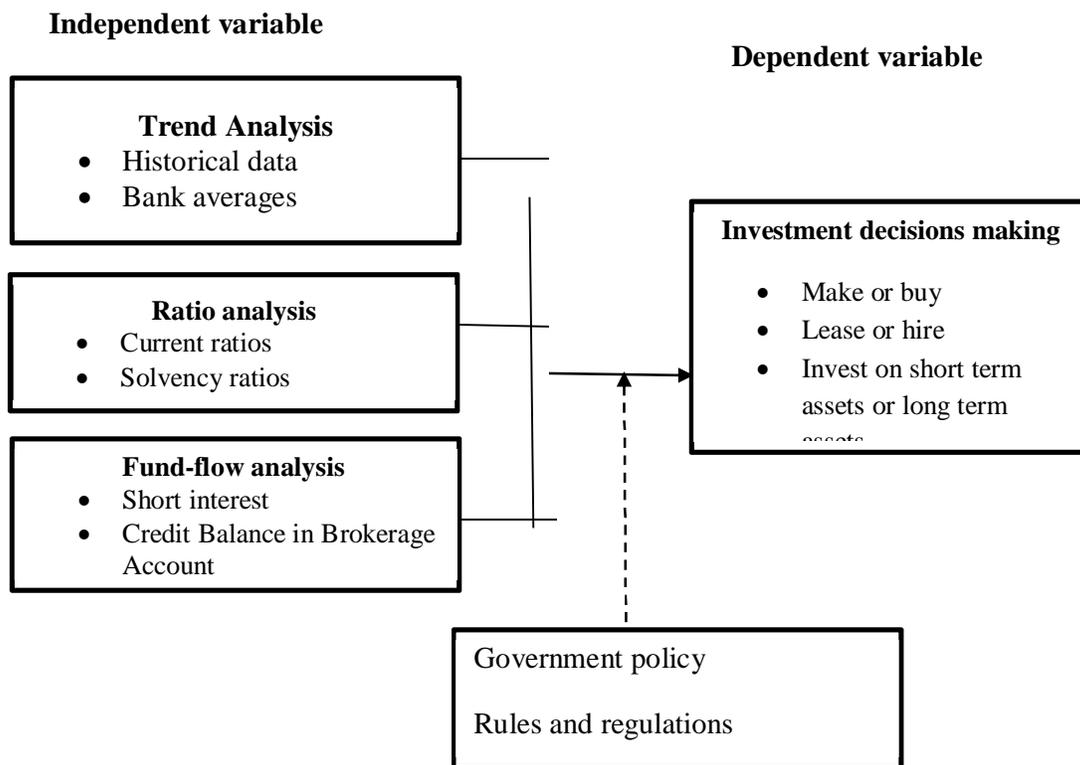


Figure 2.11: conceptual framework

(Source researcher 2016)

2.4.1 Trend Analysis

This involves computing ratios and comparing them with previous year ratios of the same company to assess the performance of the company, Diamond (2006). When more than two years are involved, index numbers are used instead of percentage changes, *ibid*. Essentially, one year is selected as the base year and is set to 100%. To measure real growth, the value of the index can be compared with either the consumer price index or any specific price index for the industry

2.4.2 Ratios on investment decision making

Saleemi (2009) efficiency ratios measure the quality of a business' receivables and how efficiently it uses and controls its assets, how effectively the firm is paying suppliers, and whether the business is overtrading or under trading on its equity (using borrowed funds). Five key financial business ratios are used to measure a company's efficiency. Collection Period Ratio, this ratio is helpful in analyzing the collectability of accounts receivable, or how fast a business can increase its cash supply. Although businesses establish credit terms, they are not always observed by their customers. In analyzing a business, you must know the credit terms it offers before determining the quality of its receivables. While each industry has its own average collection period (number of days it takes to collect payments from customers), there are observers who feel that more than 10 to 15 days over terms should be of concern. Sales to Inventory Ratio, this ratio provide a yardstick for comparing stock-to-sales ratios of a business with others in the same industry. When this ratio is high, it may indicate a situation where sales are being lost because a concern is under stocked and/or customers are buying elsewhere. If the ratio is too low, this may show that inventories are obsolete or stagnant. Assets to Sales Ratio, this ratio rates sales to the total investment that is used to generate those sales. An abnormally high percentage may indicate that a business is not being aggressive enough in its sales efforts, or that its assets are not being fully utilized. A low ratio may indicate that a business is selling more than can be safely covered by its assets. Sales to Net Working Capital Ratio, this ratio measures the number of times working capital turns over annually in relation to net sales. This ratio should be viewed in conjunction with the Assets to Sales Ratio. A high turnover rate can indicate overtrading (excessive sales volume in relation to the investment in the business) and also may indicate that the business relies extensively upon credit granted by suppliers or the bank as a substitute for an adequate margin of operating funds. Accounts Payable to Sales Ratio - This ratio measures how a company pays its suppliers in relation to the sales volume being transacted. A low percentage would indicate a healthy ratio. A high percentage may indicate that the business may be using suppliers to help finance operations.

Manas'se (2005) Profitability ratios measure how well a company is performing by analyzing how profit was earned relative to sales, total assets and net worth. Profitability ratios are the most important even though liquidity ratios have been used longest in history of financial analysis Horrigan (1968). Three key financial business ratios are used to measure a company's efficiency, return on Sales (Profit Margin) Ratio, this ratio measures the profits after taxes on the year's sales. The higher this ratio, the better prepared the business is to handle downturns brought on by adverse conditions. Return on Assets (ROA) Ratio, this ratio shows the after-tax earnings of assets and is an indicator of how profitable a company is. Return on assets ratio is the key indicator of the profitability of a company. It matches net profits after taxes with the assets used to earn such profits. A high percentage rate will tell you the company is well run and has a healthy return on assets. Return on Net Worth Ratio, this ratio measures the ability of a company's management to realize an adequate return on the capital invested by the owners in the company.

3.0 Research design

This study adopted descriptive survey design. A descriptive study is a study concerned with describing the characteristics of a particular individual or of a group (Kothari, 2004). This design method squarely fits the topic at hand by describing the effect of financial statements analysis in investment decision making at Bank of Kigali. According to Mugenda and Mugenda (2003) the purpose of descriptive research is to determine and report the way things are and it helps in establishing the current status of the population under study. The design was considered for this study due to its ability to ensure minimization of bias and

maximization of reliability of evidence collected. Furthermore, descriptive survey design raises concern for the economical completion of the research study. The method is rigid and focuses on the objectives of the study (Gay, 2011).

3.1 Target population.

Population is defined as the total collection of elements about which we wish to make inferences (Cooper & Schindler, 2003). Mugenda and Mugenda, (2003), explain that the target population should have some observable characteristics, to which the researcher intends to generalize the results of the study. The target population of this study comprised of 150 managers of Bank of Kigali. These included eight boards of directors, thirty senior managers, thirty-two middle management and eighty lower managers stationed at Bank of Kigali head office, (Bank of Kigali [BK], 2015). The study preferred to use managers, because are the ones who decisions in commercial banks.

3.2 Sample size sample frame

A sample size of 110 respondents was determined from a total population of 150 individuals using the formula by Yamane (1967). Stratified random sampling technique was used to select the respondents. Stratified random sampling technique ensures that different groups of a population are adequately represented in the sample. Purposive sampling technique was used in selecting the investors in Bank of Kigali. In this section of sampling design, the researcher mainly strategies related to sampling techniques for easy access to right data from respondents.

$$n = \frac{N}{1 + N(e)^2}$$

Where n = the desired sample size

e= probability of error (i.e., the desired precision, e.g., 0.05 for 95% confidence level)

N=the estimate of the population size.

$$n = \frac{150}{1 + 150(0.05)^2} = 110$$

3.3.1. Sample Frame

Sampling frame is a list of all the population subjects that the researcher had targeted during the study. Using the Yamane's formula, the proportions of the sample size the computed sample strata are shown in Table 3.1. The sample size of eight boards of directors, sixteen senior managers, eighteen middle management and seventy lower managers stationed at Bank of Kigali head office were used. The sample frame for this study is shown in the Table 1

Table 54 Sampling Frame

Area of Operation	Population	Proportions
Board of directors	8	6
Senior Managers	30	16
Middle Managers	32	18
BK HQ Staff	80	70
Total	150	110

4.0 RESEARCH FINDINGS AND DISCUSSIONS

4.1. Trends Analysis

This section basically needed to establish the effect of trend analysis on investment decisions making in Bank of Kigali. It was important in providing a clear understanding of the use of financial statement analysis in investment decision making.

Table 2: Trend analysis of the bank of Kigali

BASE YEAR 2006-2007
percentage (%) figures

	2007	2008	2009	2010	2011
Deposits	100	123	170	185	214
Advances	100	124	161	187	224
Net profit	100	148	201	202	162

Source: Bank of Kigali

From the data in the above Table 2 There is a continuous increase in deposits, there is an increase of advances and there is an increase in net profits till 2010 but there is a fall in 2011. The overall performance of the bank is satisfactory. Thus, leading to more investors in terms of investment decision making.

4.1.1 Use of financial statement information in investment decision making

In investment decision making, there are many information that stakeholders can use to make the move. Stakeholders can use their just experience in dealing with the company to invest, interest and long term plans of the investor, management quality information, the constitution of the board of directors as well as the way people management issues are done in an organization (Craig, 2009). The respondents were asked whether clients used financial statements in assessing BK financial position in a move to invest.

Table 3: Respodents views on the use of financial statement analysis

Variable	Frequency	Percentage
Yes	84	90
No	9	10
Total	93	100

Table 3 shows the opinion of the respondents as to whether they use financial statements information in making any move to invest. The table shows that majority about 90 percent of the respondents do use financials information in a move to invest. Just a very few of them about 10 percent do not use financials information.

The use of financial information is popular because, financial statements do contain valuable information that is key to determine profitable investments. Such information includes; return on equity, return on assets, asset-liability rations, liquidity rations, debt to equity rations etc. Such information shows clearly, whether the company is performing or not. Therefore, the study recommends that financial information are key sources of information to use in making any investment move.

4.1.2 The adequacy of BK financials for use in investment decision making

Table 4 shows the opinion of the respondents in regard to the adequacy of the financials prepared by BK.

Table 4: Respodents views on the adequacy of financial statement analysis in investment decision making

Variable	Frequency	Percentage
Yes	64	68
No	29	32
Total	93	100

Table 4 shows that many respondents about 68 percent are in opinion that the BK financials are adequate to use in the investment decision making process. A few of them about 32 percent stated that the BK financial statements are not adequate to use in the process of investment decision making. There are many reasons why financials could be inadequate. Such reasons include, data manipulation, lack of skills in the preparation of financials, and impairments i.e. refusal to report some key information as per IFRS guidelines. Financial statements are prepared as per the International Financial Reporting Standards (IFRS) guidelines. These guidelines dictate things to follow that will ensure good quality of all reports (NBAA, 2010).

4.1.3 Financial Statements that are used in Investment decision making

Respodents were asked on the financial statements that are used during investment decision making. To establish the relationship between the rankings of financial statements to the investment decision, eta was computed and to determine the explained variation in the investment decision, resulting from the type of financial statement ordinal eta squared was calculated. The measure of association was meant to indicate the size of effects on the investment decision based on the either the investment being short or long term. The larger eta indicates greater influence of the financial statement in determining the term of the investment.

Table 5: Measure of Association between the Ranking of Financial Statements and investment decision

Financial Statement	Eta	Eta squared
Balance Sheet	.495	.245
Cash Flow Statement	.395	.156
Projected Balance Sheet	.267	.071
Projected Income Statement	.130	.0169
Projected Cash Flow Statement	.500	.250
Income Statement	.573	.329
Other factors	.289	.084

Table 5 indicates that the current income statement has the greatest influence in determining the term of investment (eta = .573) and further indicates that the decision to grant a short or a long-term investment is influenced 32.9% (eta = .329) by the income statement produced by a borrower.

Secondly, the projected cash flow statement is ranked second in influencing term of investment (eta - .500 and eta squared = .25) and finally in the balance sheet (eta = .495). The combined effect size of the balance

sheet, income statement and the projected cash flow account for 82% of the influence on the term of investment (combined eta squared = .82). Other factors account for less than 10% (eta = .084). However, they are also important in determining the term of the investment decision to a client.

The study concludes that, while there are other factors that determine the terms of investment decision, financial statements forwarded by the customer remain most important. And in their order of priority, the income statement is the most important and seconds the projected cash flow statement and finally the balance sheet. Apparently, the banks are more interested in future cash flow to determine the term of the investment and not the past cash flow statements which have a lower effect size in influencing term investment decisions. This finding was similar to Hernandez and Perez (2004) who found a preference by credit institutions for statements that are budgetary in nature, in credit appraisal.

Regression analysis was done to determine the effect of trend analysis on investment decision making in Bank of Kigali and the following results were obtained. The results of the analysis are shown in Table 6.

Table 7: Model summary showing effect of trend analysis on investment decision making

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.755 ^a	.570	.558	.601

f. Predictors: (Constant), Trend analysis

The researcher conducted a regression analysis to determine the significance relationship of trend analysis on investment decision making. Table 8 show that the coefficient of determination is 0.570; therefore, about 57.0% of the variation in the investment decision making is explained by trend analysis. The regression equation appears to be relatively useful for making predictions since the value of R squared is slightly more than half.

Table 8: ANOVA results showing the effect of trend analysis on investment decision making ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18.177	1	18.177	50.334	.000 ^a
	Residual	13.723	38	.361		
	Total	31.900	39			

b. Dependent Variable: Investment decision making

c. Predictors: (Constant), Trend analysis

Table 9 presents the results of the Analysis of Variance (ANOVA) on trend analysis versus investment decision making. The ANOVA results for regression coefficients indicate that the significance of the F is 0.00 which is less than 0.05. This indicates that the regression model statistically significantly predicts the outcome variable (meaning it is a good fit for the data). There is therefore a significant relationship between trend analysis and Investment decision making

Table 9: Coefficient results showing the relationship between trend analysis and investment decision making
Coefficients (a)

Model		Unstandardized		Standardized	T	Sig.
		Coefficients B	Std. Error	Coefficients Beta		
1	(Constant)	.609	.412		1.478	.148
	Trend analysis	.806	.114	.775	7.095	.000

e. Dependent variable: Investment Decision making

The researcher sought to determine the beta coefficients of trend analysis versus investment decision making. Table 9 shows that there was positive relationship since the coefficient of trend analysis was 0.806 which is significantly greater than zero. The t statistics (7.095) was also greater than zero. This demonstrated that the trend analysis had a positive influence on investment decision making.

Correlation coefficients show that trend analysis (X1) is significant (p-value = 0.0000) in investment decision making. (Y). The results of the analysis are shown in Table 4.10. The fitted model from this analysis is shown below:

$$Y = 0.609 + 0.806X_1$$

4.2 Ratio analysis

Ratio analysis in investment decision making was taken into consideration on three aspects; Understanding ratio analysis in investment decision making and ratio analysis as a tool of investment decision making

4.2.1 Investment ratios of Bank of Kigali

The study sought the view of the respondents in regard to investors use of ratios on investment decision making. Ratio were calculated using equation in the theories.

Table 10: Investment ratios of Bank of Kigali

BASE YEAR 2006-2007
 percentage (%) figures

	2007	2008	2009	2010	2011
Earnings per Share	18.9	18.6	16.4	31.6	33.8
Dividend per Share	9.75	12.00	13.20	14.20	15.1
Dividend cover	1.30	1.63	1.67	1.68	1.75

Source: Author's calculations and Annual Financial Reports of Bank of Kigali

In the year 2007 Bank of Kigali experienced a sharp increase in earnings per share going up by 497%. This was caused by the change in profit for the financial year attributable to equity holders from 64 to £325m. Another positive shock occurred in 2010 when diluted earnings went up from 289 to £591m, primarily due to the revaluation of properties. It is important that assets are revaluated in order to keep the real value of assets on balance sheet.

Earnings per share in 2011 increased by 7% to 33.8 p, reflecting the improvement in the operating profit and the effect of the additional shares issued in 2009, more importantly due to the property profits.

Dividend cover needs to be sustainable in the future. The reason behind it is that if the dividend cover is too low, there is a possibility that the company will not be able to pay out the investors. If the investors are not satisfied, they may invest their money in another company. Dividend cover of Bank of Kigali says that earnings available for dividend cover the actual dividend by 1.58 times on average during the last 5 years.

4.2.2 Ratio analysis as a tool for investment decision making

Ratio analysis as a tool for investment decision making was analyzed and respondents' opinions against the statements were recorded using the scale shown below: 1-Strongly disagree; 2 – Disagree; 3 – Indifferent; 4 – Agree; 5 –Strongly agree.

Table 12 Respondents views on ratio analysis in investment decision making

No.	Statements	Rating				
		1	2	3	4	5
1.	Strategic decision is made by the board of directors through the use of ratios analysis		9 (10%)	12 (13%)	24 (25%)	48 (52%)
2.	Decisions of the management largely depends on use of ratios analysis	2 (2%)	3 (3%)	12 (13%)	40 (43%)	36 (39%)
3.	Decisions about the perception of investment is made through use of ratios analysis	3 (3%)	6 (7%)	15 (16%)	30 (31%)	40 (43%)
4.	Decisions as to whether the enterprise is making profits or not is made via use of ratios analysis		9 (10%)	12 (13%)	24 (25%)	48 (52%)
5.	Time factor in decision making is largely dependent on use of ratios analysis	2 (2%)	3 (3%)	12 (13%)	40 (43%)	36 (39%)
6.	Decisions about overall performance of the organization via growth, effectiveness, productivity etc. is made through use of ratios analysis.		11 (12%)	22 (23%)	20 (22%)	40 (43%)
7.	Management can easily make effective decisions that would move the enterprise forward through use of ratios analysis.		11 (12%)	22 (23%)	20 (22%)	40 (43%)

Analysis of the responses to the statement that strategic decision is made by the board of directors through the use of ratios analysis, revealed that 52% of the respondents strongly agreed, 25%, agreed, 13% were neutral, 10% disagreed while none strongly disagreed. This implies that Bank of Kigali strategic decision is made by the board of directors through the use of ratios analysis.

Analysis of the responses to the statement that decisions of the management largely depends on use of ratios analysis, revealed that 39% of the respondents strongly agreed, 43%, agreed, 13% were neutral, 3% disagreed while 2% strongly disagreed. This means that there is a good link between decisions of the management largely depends on use of ratios analysis.

When the responses to the statement that decisions about the perception of investment is made through use of ratios analysis were analyzed, it was found that 43% of the respondents strongly agreed, 31%, agreed,

16% were neutral, 7% disagreed while 3% strongly disagreed. This shows that bank of Kigali decisions about the perception of investment is made through use of ratios analysis.

Analysis of the responses to the statement that decisions as to whether the enterprise is making profits or not is made via use of ratios, revealed that 52% of the respondents strongly agreed, 25%, agreed, 13% were neutral, 10% disagreed while none strongly disagreed. This means that decisions as to whether the enterprise is making profits or not is made via use of ratios

Analysis of the responses to the statement that time factor in decision making is largely dependent on use of ratios analysis revealed that 39% of the respondents strongly agreed, 43%, agreed, 13% were neutral, 3% disagreed while 2% strongly disagreed.

When the responses to the statement that decisions about overall performance of the organization via growth, effectiveness, productivity etc is made through use of ratios analysis, it was found that 43% of the respondents strongly agreed, 22%, agreed, 23% were neutral, 12% disagreed while none strongly disagreed.

When the responses to the statement that management can easily make effective decisions that would move the enterprise forward through use of ratios analysis were analyzed it was found that, 54% of the respondents strongly agreed, 30%, agreed, 13% were neutral, 3% disagreed while none strongly disagreed.

4.2.3 Rating of Profitability Ratios in Investment Decisions Making

The respondents were required to answer the questions requiring them to rate the profitability ratios on the scale of 1 to 5. Where 1-Strongly disagree; 2 – Disagree; 3 – Indifferent; 4 – Agree; 5 –Strongly agree. The table below shows the various profitability ratios and how they are rated by the Bank of Kigali in making their investment decisions.

Table 13: Profitability ratios

	N	Min.	Max.	Mean	Std. Dev.
Dividend yield (DY	93	1	5	2.78	1.05
Dividend payout (DPO)	93	1	5	2.70	.993
Dividend per share (DPS)	93	1	5	2.74	.984
Earnings per share (EPS)	93	1	5	2.89	1.188
Earnings yield (EY)	93	1	5	3.31	1.050
Gross profit to sales (GPS)	93	2	5	4.00	.943
Net profit Margin (NPM)	93	3	5	4.18	.772
Operating profit to sales (OPS)	93	3	5	4.19	.736
Return on capital employed (ROCE)	93	3	5	3.96	.759
Return on equity (ROE)	93	2	5	4.19	.786
Profit/ Volume Ratio (PVR)	93	3	5	4.04	.720

Table 13 shows the results of the analysis. It can therefore be seen that only two ratios are frequently used thus return on equity (ROE) and net profit to sales. Also, used moderately are the profit volume ratio, return on capital employed (ROCE), net profit margin, gross profit to sales and earnings yield. These ratios were obtained from the audited financial statements which again are highly relied upon on making the investment decisions.

4.2.4 The Variables looked at in assessing company’s financial position

Variables are measurable items that are used to define a behavior of a particular phenomenon (Encarta, 2007). There are various variables that are used to define the financial position of a company. Such variables are extracted from both income statements and balance sheet. They include items like return on assets, return on equity and other financial performance ratios.

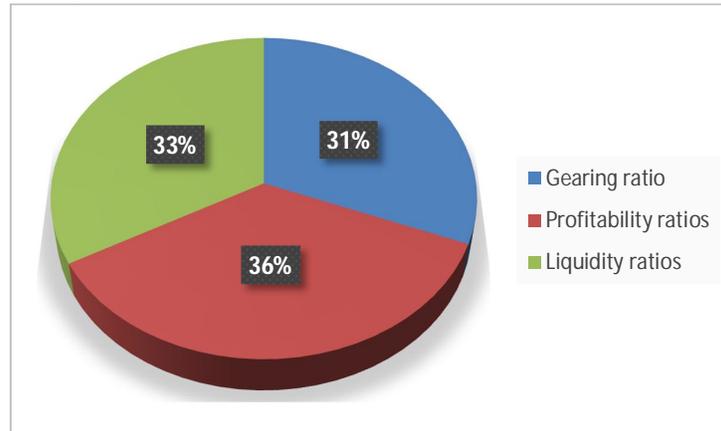


Figure 2: Variables looked at in assessing company’s financial position

Figure 2 shows the variables that stakeholders look at to determine the financial position of a firm from financial statements in the move to make investment decision. The data shows that gearing ratios, liquidity ratios, and profitability ratios are the key financial variables that stakeholder look at in the process of investment decision making. These ratios clearly show whether a company is performing or not and therefore clearly guides investors whether to invest or not.

Regression analysis was done to determine the effect of ratio analysis on investment decision making

Table 14: Model summary showing effect of ratio analysis on investment decision making

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.791 ^a	.626	.616	.561

a. Predictors: (Constant), Ratio analysis

The results show that the coefficient of determination R squared 0.626 which imply that 62.6% of the variation in investment decision making is explained by ratio analysis. The regression equation appears to be relatively useful for making predictions since the value of R squared is near 1. This means that when ratio analysis was used the investment decision making of Bank of Kigali in Rwanda changed by 62.6%.

Table 15: ANOVA results showing the effect of ratio analysis on investment decision making ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.954	1	19.954	63.477	.000 ^a
	Residual	11.946	38	.314		
	Total	31.900	39			

b. Dependent Variable: Investment decision making

c. Predictors: (Constant), Ratio analysis

The test for the analysis of variance (ANOVA) showed that regression coefficients indicate that the significance of the F is 0.00 which is less than 0.05. This indicates that the regression model statistically significant predictor of the outcome variable. There is therefore a significant relationship between ratio analysis and the investment decision.

Table 16: Coefficient results showing the effect of ratio analysis on investment decision making Coefficients (a)

Model		Unstandardized		Standardized	T	Sig.
		Coefficients B	Std. Error	Coefficients Beta		
1	(Constant)	.849	.338		2.509	.016
	Ratio analysis	.776	.097	.791	7.967	.000

a. Dependent variable: Investment decision making

The results in Table 4.16 show a beta coefficient of 0.849 which implies a strong positive relationship between ratio analysis and investment decision making. The findings further show that the test was statistically significant with the significance value of 0.000 which is less than the p-value of 0.05. The t statistics (7.967) was also greater than zero. This demonstrated that ratio analysis had a positive influence on the investment decision making. Correlation coefficients show that Ratio analysis (X2) is significant (p-value = 0.0000) in investment decision making (Y). The results of the analysis are shown in Table 4.16. The fitted model from this analysis is shown below:

$$Y = 0.849 + 0.776X_2$$

4.3 Cost volume analysis

4.3.1 Reliability of NPVs calculated from financials' information

In finance, the net present value (NPV) or net present worth (NPW) is defined as the sum of the present values (PVs) of incoming and outgoing cash flows over a period of time. Incoming and outgoing cash flows can also be described as benefit and cost cash flows, respectively. The difference between the present value of cash inflows and the present value of cash outflows. The difference between the present value of cash inflows and the present value of cash outflows (Adam, 2008).

Table 17 shows the reliability respondents have with the net present values calculated from financial statements data. The table shows that majority of the respondents consider the net present values calculated as reliable.

Table 17: Extent to which financials help investor to take opportunities

Variable	Frequency	Percentage
Not reliable	0	0
Little reliable	4	4
Moderately reliable	11	12
Reliable	67	72
Very reliable	11	12
Total	93	100

This implies that majority of the respondents are financial information users and they are knowledgeable. Their confidence in the net present values calculated from the financial data implies that they know that financials contain and display. In addition, the data shows that investors can use financial statements to determine whether their investments will pay or not pay at the end of the day. Net present values give assurances to investors that their investments will yield positive returns at the end of the day. A negative net present value would make investors abandon an investment outright. Therefore, the study recommends that investors need to be good users of financial information as the net present values calculated are reliable. This is because it does help them take various investment opportunities beforehand.

4.3.2 Investor’s dependability on the credibility of auditors/financial expert’s approval

Respondents opinion on Investor’s dependability on the credibility of auditors/financial expert’s approval of financial statements in making investment decisions were noted using 1-Strongly disagree; 2 – Disagree; 3 – Indifferent; 4 – Agree; 5 – Strongly agree.

Table 18: Investor’s dependability on the credibility of auditors/financial expert’s approval

No.	Statements	Rating					Mean	Std. Dev
		1	2	3	4	5		
1.	Endorsement of financial statement by reputable auditing firm gives	2 (1.3%)	3 (2.7%)	3 (2.7%)	30 (32.0%)	57 (61.3%)	1.51	0.79
2.	Endorsement of a reputable auditor influences your investment decision.	0 (0%)	0 (0%)	0 (0%)	43 (46.7%)	50 (53.3%)	1.47	0.50

From Table 18 analysis of the statement that endorsement of financial statement by reputable auditing firm gives credibility to financial statement revealed that 61.33% respondents strongly agreed, 32% respondents agreeing, 2.67% respondents being undecided, 2.67% respondents disagreeing and 1.33% respondents strongly disagreeing and a mean of 1.51, respondents agree that the endorsement of financial statement by

reputable auditing firm gives credibility too financial. The views of the respondents 53.3% who strongly agreed and 46.67% who agreed while no respondent was undecided, disagreed or strongly disagreed and the mean responses of 1.47 reveals that the endorsement of a reputable auditor influences respondents' investment decisions.

4.3.3 Cost volume analysis on financial statements in forecasting investment decision

Respondents were also asked whether financial statements are everything in understanding company's performance. The views were captured and the results are given in Table 19

Table 19: Financial statements influence on company performance

Variable	Frequency	Percentage
Yes	70	74.3
No	23	25.7
Total	93	100

From Table 4.22 74.3% of respondents indicated that financial statements influenced company's performance whereas 25.7% of the respondents were not in agreement with the statement.

Regression analysis was done to determine the effect of cost volume analysis on investment decision making. The study conducted another regression analysis to test the relationship between cost volume analysis and investment decision making. The results in Table 20 shows that the coefficient of determination R squared was 0.482 which means that 48.2% of the variance in investment decision making in Bank of Kigali is explained by cost volume analysis. This though positive is a weak representation and therefore means there are equally other factors which determine investment decision making in Bank of Kigali.

Table 20 Model summary showing effect of cost analysis on investment decision making

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.694 ^a	.482	.468	.660

a. Predictors: (Constant), Cost volume analysis

Table 22: ANOVA results showing the effect of cost analysis on investment decision making
ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	15.364	1	15.364	35.305	.000 ^a
	Residual	16.536	38	.435		
	Total	31.900	39			

b. Dependent Variable: Cost volume analysis

c. Predictors: (Constant), Investment Decision making

A regression analysis was done to determine the effect of cost volume analysis on investment decision making of Bank of Kigali in Rwanda. From the analysis, a p-value less than 0.05 (p-value = 0.0000) was obtained. This implies that the simple linear model with cost volume analysis as the only independent variable is significant.

Table 23: Coefficient results showing the relationship between cost analysis on investment decision making

Coefficients (a)

Model		Unstandardized		Standardized	T	Sig.
		Coefficients B	Std. Error	Coefficients Beta		
1	(Constant)	1.382	.363		3.803	.001
	Cost Volume analysis	.591	.099	.694	5.942	.000

a. Dependent variable: Investment decision making

The beta coefficients of Cost volume analysis versus investment decision making results in Table 23 showed that there was significant relationship between investment decision making and the cost volume analysis was positive since the coefficient of investment decision making is 0.591 which is significantly greater than zero. The t statistics (5.942) was also greater than zero. This demonstrated that the investment decision making had a positive influence on cost volume analysis in the Bank of Kigali. Correlation coefficients show that cost volume analysis (X3) is significant (p-value = 0.0000) in investment decision making (Y). The results of the analysis are shown in Table 4.22. The fitted model from this analysis is shown below:

$$Y = 1.382 + 0.591X_3$$

4.4 Regression Results

The results show that the coefficient of determination was 0.696 which mean that 69.9% of variation in investment decision making is explained by trend analysis, ratio analysis and cost volume analysis. The regression equation appears to be relatively useful for making predictions. R square and adjusted R is high; therefore, this implies that there is a high variation that can be explained by the model.

Table 24: Model summary of the combined effect

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.834 ^a	.696	.661	.527

b. Predictors: (Constant), Trend analysis, ratio analysis and cost volume analysis

The ANOVA results for regression coefficients on Table 24 showed that the significance of the F statistics is 0.000 which is less than 0.05. This implied that there was a significant relationship between trend analysis, ratio analysis and cost volume analysis affecting the dependent variable the investment decision making.

Table 25: ANOVA results showing the combined effect ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	22.191	4	5.548	19.999	.000 ^a
	Residual	9.709	35	.277		
	Total	31.900	39			

b. Dependent Variable: Trend analysis, ratio analysis and cost volume analysis

c. Predictors: (Constant), Investment Decision making

The study sought to determine the beta coefficient of the variables. The findings are presented in Table 25
 The regression model was written as: Investment decision making = 0.404 + 0.293 Trend analysis + 0.415
 Ratio analysis + 0.020 cost volume analysis.

Table 26: Coefficient results showing the combined effect Coefficients (a)

Mode 1		Unstandardized		Standardize d	t	Sig.
		Coefficients				
		B	Std. Error	Beta		
1	(Constant)	.404	.368		1.098	.020
	Trend analysis	.293	.171	.274	1.712	.046
	Ratio analysis	.415	.192	.422	2.159	.038
	Cost volume analysis	.020	.158	.024	.130	.038
Dependent variable; Investment decision making						

From the data in the above table the established regression equation was

$$Y = 0.404 + 0.293 X_1 + 0.415X_2 + 0.020 X_3$$

The Beta Coefficients in the regression show that all of the tested variables had positive relationship with investment decision making. The findings show that all the variables tested were statistically significant with p-values less than 0.05.

X₁ = 0.293 which implied that a unit change in the trend analysis resulted into a 0.293 change in investment decision making.

X₂ = 0.415; this implied that unit change in the ratio analysis will result into a 0.415 change in investment decision making

X₃= 0.020; implied that one-unit change in the cost volume analysis will result into a 0.020 change in investment decision making.

5.0. Conclusions

The research study revealed that financial statement analysis performs a crucial role on investment decisions making and organization performances, which has been shown to be major force in investment decision making. This is achieved by implementing the best fundamental concepts of financial statement analysis for any Bank. Bank of Kigali used as case study made the researcher to understand that, for any Bank to be successful, it should endeavor to make use of financial statement analysis because accounting itself is a language of business, and before venturing into any business, one must know the right method to achieve the stated goals and objectives. Also, studies have shown that successful utilization of accounting information requires a fit between three factors.

First, a fit must be achieved with dominant view in the organization or perception of the situation.

Second, the financial statement analysis must fit when problems are normally solved, i.e. the technology of the organization.

Thirdly, the accounting information must fit with the culture of the organization i.e. the norms and value system that characterizes the organization. Finally, there is also a high level of awareness pertaining the role of accounting information and managerial efficiency. There is also a high level of awareness pertaining the role of accounting information system which is not limited to senior and management staffs alone but also cut across intermediate and junior staffs whose operations are also governed by the accounting information system. It is evident that the accounting information factors looms large among factors, which contribute to the overall corporate efficiency.

5.1. Recommendations

Having gone through this study the researcher recommends the following specific recommendations as a way of incurring that, financial statement plays a vital role in investment decisions making.

1. Every financial institution should ensure that all material facts as regard the assets and equity of the organization should be reflected in their yearly financial statement. As such, the financial institutions should adhere to the demand of subjecting their financial statement to statutory audit as a way of authenticating their contents.
2. The financial statement should be prepared using such a language and terms a layman can understand because the technical terms do not mean much to the investors. These should be prompt provision of the financial statement at the end of each financial year and the profit after tax should be reported precisely and correctly with actual figures and avoid use of percentage to enable any layman make good investment decision.
3. Investment decision should not be on a vacuum or rule of thumb rather, the financial statement should be used as the bedrock and the volume of liabilities acquired by financial institutions should be minimal and invested wisely to avoid its negative effect on the profit of the bank which will discourage prospective investors. No investment decisions on a financial institution should be taken without the consideration of a company's financial statement.
4. Banks and companies should carry out educational enlightenment programme from time to time to enable investors understand the financial report fully. Investors should attach much importance to the annual reports so that banks and companies can really know the extent of their responsibility in preparing the financial statement.
5. Banks and companies should sponsor research into the information needs of their investors and how best to communicate this information to them. There should be a review of annual report of banks and companies by the authority concerned, in order to affect the much-needed charges raised by investors considering the changing economic trend in the country.

5.2 Suggestions for Further Research

Further research on the study abounds in this study area like;

1. Relationship between accounting information management and Organization Effectiveness.
2. Accounting Information for Business Performance Assessment in Small and Medium Enterprises (SMEs).
3. The study failed to critically examine the relationship between accounting information and employee's commitment.
4. The study was unable to look at the framework for analyzing accounting information in the manufacturing industry, so further study can embark on this.
5. Further research can also involve a replication of the present study in other industry to know whether the findings of this study can pass the test of generalizability.

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